

Attachment 1

Summary of WAG ERA Results

Table A1-1. Summary of WAG 1 ERA results.

Site	Description/Size (m ²)	COPC	Max. Conc. (mg/kg) ¹	Bkgd.Conc. (mg/kg) ¹	WAG ERA EBSL (mg/kg) ¹	WAG ERA HQ ^a	Site Remediation Plans (Preferred Alternative)
LOFT-02	LOFT Disposal Pond (TAN-750) (10,000 m ²)	Copper	3.30E+01	3.20E+01		<1 to 10	No Further Action
		Fluoride	9.90E+01	NA	3.11E+00	<1 to 20	
		Manganese	1.08E+03	490		<1 to 20	
TSF-03	TSF Burn Pits (155 m ²)	Lead	1.13E+03	2.30E+01		<1 to 200	Sampling during Summer 1999 will be completed to determine depth of the native soil cover or whether another alternative will be selected.
		2-methylnaphthalene	1.66E+00	Not Available (NA)	3.25E-02	<1 to 6	
TSF-07	TSF Disposal Pond (9,800 m ²)	1,4-dichlorobenzene	9.00E-03	NA	NA	Not Evaluated	Limited Action: existing management practices, including institutional controls & environmental monitoring, would continue.
		Aroclor-1260	1.70E+00	NA	8.02E+00	<1 to 3	
		Arsenic	4.92E+01	7.40E+00		<1 to 50	
		Aluminum	3.40E+04	2.40E+04	8.50E+00	<1 to 4,000	
		Antimony	2.74E+01	7.40E+00		<1 to 30	
		Barium	9.74E+03	4.40E+02		<1 to 90,000	
		Benzo(b)fluoranthene	3.00E-01	NA	3.25E-02	<1 to 4	
		Cadmium	1.49E+01	3.70E+00		<1 to 6,000	
		Chloromethane	1.00E-02	NA	NA	No toxicity data – low concentration; highly volatile; likely biodegradation	
		Cobalt	1.99E+01	1.80E+01		<1 to 40	
		Chromium (III)	1.50E+02	5.00E+01		<1 to 200	
		Copper	1.09E+03	3.20E+01		<1 to 500	
		Cyanide	2.93E+00	NA	1.43E-01	<1 to 20	

Table A1-1. (continued).

Site	Description/Size (m ²)	COPC	Max. Conc. (mg/kg) ¹	Bkgd.Conc. (mg/kg) ¹	WAG ERA EBSL (mg/kg) ¹	WAG ERA HQ ^a	Site Remediation Plans (Preferred Alternative)
	Dichlorodifluoromethane		1.20E-02	NA	NA	No toxicity data -- low concentration; highly volatile; likely biodegradation	
	Bis(2-ethylhexyl)phthalate	3.90E+00		NA	2.56E+00	<1 to 1	
	Lead	3.38E+02		2.30E+01		<1 to 600	
	Mercury	4.04E+03		7.40E-02		70 to 300,000	
	Nickel	7.82E+01		5.50E+01		<1 to 30	
	Propionitrile	2.00E-02		NA	NA	No toxicity data - low concentration; likely biodegradation	
	Selenium	4.22E+01		3.40E-02		<1 to 500	
	Silver ^b	1.66E+02		NA	2.99E+00	<1 to 100	
	Strontium	5.97E+02		NA	5.91E+00	<1 to 8	
	Tetrahydrofuran	2.20E-02		NA	NA	<1 to 20,000 - low concentration; volatile; likely biodegradation	
	Thallium	4.82E+01		6.80E-01		<1 to 300	
	Tin	1.15E+03		NA	3.73E+00	<1 to 300	
	Vanadium	9.45E+01		7.00E+01		<1 to 300	
	Vinyl acetate	3.00E-03		NA	NA	No toxicity data -- low concentration; likely biodegradation	
	Zinc	2.40E+03		2.20E+02		<1 to 300	

Table A1-1. (continued).

Site	Description/Size (m ²)	COPC	Max. Conc. (mg/kg) ¹	Bkgd. Conc. (mg/kg)	WAG ERA EBSL (mg/kg) ¹	WAG ERA HQ ¹	Site Remediation Plans (Preferred Alternative)
TSF-08	TSF HTRE III Mercury Spill Area (90 m ²)	Mercury	5.90E+01	7.40E-02	<1 to 300	<1 to 10-8.	Carried through to OU 10-8.
WRRTF-01	WRRTF Burn Pits (2,520 m ²)	Chromium (III) ^c	2.64E+02	5.00E+01	<1 to 300	<1 to 300	Sampling during Summer 1999 will be completed to determine depth of the native soil cover or whether another alternative will be selected.
		Chromium (VI) ^c	2.64E+02	5.00E+01	<1 to 300 – species not likely to be present in dry soil	<1 to 300 – species not likely to be present in dry soil	
WRRTF-03	WRRTF Evaporation Pond (5,574 m ²)	Lead	2.35E+03	2.30E+01	<1 to 4,000	<1 to 4,000	
		2-methylnaphthalene	1.03E+01	NA	3.25E-02	<1 to 300	No Further Action
		Cadmium	1.17E+01	3.70E+00	<1 to 4,000	<1 to 4,000	
		Chromium (III) ^c	7.89E+01	5.00E+01	<1 to 80	<1 to 80	
		Chromium (VI) ^c	7.89E+01	5.00E+01	<1 to 80 – species not likely to be present in dry soil	<1 to 80 – species not likely to be present in dry soil	
		Silver	1.80E+01	NA	2.99E+00	<1 to 10	

Table A1-1. (continued).

Site	Description/Size (m ²)	COPC	Max. Conc. (mg/kg) ¹	Bkgd.Conc. (mg/kg) ¹	WAG ERA EBSL (mg/kg) ¹	WAG ERA HQ ^a	Site Remediation Plans (Preferred Alternative)
WRRTF-13 WRRTF Fuel Oil Leak (125 m ²)		2-methylnaphthalene	2.90E+02	NA	3.25E-02	<1 to 800	Excavation & Land Farming: the contaminated soil would be excavated to 10 ft or the maximum depth at which Contaminant concentrations exceed remediation goals, Whichever is less. Sampling would be performed before excavation to determine what volume of contaminated waste must be removed based on Idaho risk-based corrective action guidance. The site will be backfilled with clean soil. The Contaminated soil will be land-farmed at the CFA land farm
		TPH	1.98E+04	NA	5.16E+01	<1 to 200	

¹ pCi/g for radionuclides. 2 mg/kg for metals & organic compounds

a. This represents the maximum HQs calculated across functional groups and T/E species.

b. At TSF-07 the average silver concentration also exceeded AWQC (AWQC = 0.12 ug/L, average silver concentration = 20.5 ug/L).

c. Soil chemical analysis was for total chromium only. In the absence of specific analyses, CrIII & CrVI concentrations were conservatively assumed to be the same as the total Cr.

NA = not applicable or not available (e.g., no background concentration for this COPC).

Note: Shading indicates sites with contaminants having HQs greater than 10 retained for further evaluation in the OU 10-04 RI/FS.

Table A1-2. Summary of WAG 2 ERA results.

Site	Description/Size (m ²)	COPC	Max. Conc. (mg/kg) ^a	Bkgd. Conc. (mg/kg) ^a	EBSL (mg/kg) ^a	HQ in the RI/FS ^a	Excel HQ ^b	Site Remediation Plans (Preferred Alternative)
TRA-02	TRA Paint Shop Ditch (TRA-606) (188 m ²)	Antimony	1.35E+01	4.80E+00	1.34E+00	<1 to <10	<=3	No Further Action
		Benzo(b)fluoranthene	9.60E-01	NA	3.25E-02	>1 to <10	<1	
		Barium	1.60E+02	4.40E+02	NA	NA	<=220	Maximum value is below INEEL background value
		Lead	1.78E+01	1.70E+01	3.34E-03	>1 to <10	<=4	
		Selenium	5.98E+00	2.20E-01	2.1.72E-01	>100 to <1,000	<=10	
		Silver	4.83E+00	NA	2.00E+00	>1 to <10	<=2	
		Thallium	9.29E+00	4.30E-01	1.01E-01	>10 to <100	<=10	
TRA-03	TRA Warm Waste Leach Pond Sediments (9,290 m ²)	Tin	5.46E+00	NA	3.73E+00	>10 to <100	<1	
		Mercury	1.10E+00	5.00E-02	3.00E-01	<1 to <70	<=70 – pond remediated; no pathway	Containment with an engineered soil cover and institutional controls in place. Restricted site access for more than 30 years for occupational use and industrial land use only when risk is <1E-04.
		Am-241 ^c	1.60E+02	1.10E-02	1.78E+01	>1 to <10		
		Pu-239/40 ^c	1.70E+02	1.00E-01	1.89E+01	>1 to <10		
		Sr-90 ^c	3.40E+03	4.90E-01	3.34E+03	>1 to <10		
		Arsenic	1.02E+01	5.80E+00		>1 and <10	<=10	No Further Action with institutional controls in place. Restricted site use for industrial use of 10 feet or less.
		Acrylonitrile	0.0471	NA		>10 and <100	<1	
TRA-04/05	TRA Warm Waste Retention Basin (TRA-712), Waste Disposal Well, Sampling Pit (TRA-674) & Sump (TRA-703) (12,700 m ²)	Chromium (III)	2.14E+01	3.30E+01			<=20	
		Copper	40.5	2.20E+01		>1 and <10	<1	
		Lead	3.97E+01	1.70E+01	3.34E-03	>10 and <100	<=100	
		Mercury	1.00E-01	5.00E-02		>1 and <10	<=7	
		Selenium	3.40E-01	2.20E-01		>1 and <10	<=4	

Table A1-2. (continued).

Site	Description/Size (m ²)	COPC	Max. Conc. (mg/kg) ¹	Bkgd. Conc. (mg/kg) ¹	EBSL (mg/kg) ¹	HQ in the RI/FS ^a	Excel HQ ^b	Site Remediation Plans (Preferred Alternative)
TRA-06	TRA Chemical Waste Pond (TRA-701) (26,900 m ²)	Thallium	4.50E-01	4.30E-01		>1 and <10	<=3	
		Antimony	1.29E+01	4.80E+00		>1 and <10	<=10	Containment with a native soil cover & institutional controls 1 ft top soil above the native/ contaminated soil & the surface seeded with crested wheatgrass/ equivalent INEEL mix. Residential land use restricted to depths less than 14 feet.
		Arsenic	6.40E+00	5.80E+00	7.60E-01	>1 and <10	<=7	
		Barium	1.86E+03	3.00E+02		>100 and <1,000	<=20,000	
		Cadmium	2.05E+00	2.20E+00	6.13E-01	>10 and <100	<=800	
		Chromium (III)	2.41E+01	3.30E+01			<=20	
		Lead	2.25E+01	1.70E+01	3.34E-03	>10 and <100	<=40	
		Mercury	1.33E+02	5.00E-02	3.00E-01	>10 and <100	<=9,000	
		Selenium	1.69E+01	2.20E-01	1.72E-01	>1,000	<=200	
		Silver	4.67E+00	NA	2.00E+00	>1 and <10	<=3	
TRA-08	TRA Cold Waste Disposal Pond (TRA-702) (14,700 m ²)	Strontium	1.28E+02	NA	5.91E+00	>1 and <10	<=2	
		Thallium	8.43E+00	4.30E-01	1.01E-01	>10 and <100	<=60	
		Tin	3.38E+00	NA	3.73E+00	>1 and <10	<1	
		Silver	2.35E+01	NA	2.00E+00	>1 and <10	<=20	Soil excavated and disposed of to 1E-04 future residential risk cleanup levels. Institutional controls restrict industrial land use for less than 100 years until residential risk is <1E-04.
		Arsenic	3.94E+01	5.80E+00	7.60E-01	>10 and <100	<=40	
		Cadmium	1.10E+01	2.20E+00		>10 and <100	<=4,000	
		Copper	5.80E+01	2.20E+01		>10 and <100	<=20	
		Lead	3.52E+01	1.70E+01	3.34E-03	>10 and <100	<=90	
		Mercury	6.00E-01	5.00E-02	3.00E-01	>10 and <100	<=40	
		Barium	4.58E+02	3.00E+02		>100 and <1,000	<=4,000	
A1-6		Selenium	3.85E+01	2.20E-01	1.72E-01	>1,000	<=400	
		Chromium (III)	4.49E+01	3.30E+01			<=40	
		Tetrahydrofuran	2.50E-02	NA	None		<1	

Table A1-2. (continued).

Site	Description/Size (m ²)	COPC	Max. Conc. (mg/kg) ⁱ	Bkgd. Conc. (mg/kg) ⁱ	EBSL (mg/kg) ⁱ	HQ in the RI/FS ^a	Excel HQ ^b	Site Remediation Plans (Preferred Alternative)
	Xylene		2.00E-02	NA	2.78E-01		<=20	
TRA-13	TRA Final Sewage Leach Ponds (2) (TRA-732) (3,020 m ²)	Copper	9.16E+01	2.20E+01	2.38E+00	>10 and <100	<=3	Containment with a native soil cover & institutional controls
	Lead		7.23E+01	1.70E+01	3.34E-03	>10 and <100	<=100	
	Mercury		6.15E+00	5.00E-02	3.00E-01	>100 and <1,000	<=400	
	Selenium		3.07E+00	2.20E-01	1.72E-01	>10 and <100	<=30	
	Silver		2.29E+01	NA	2.00E+00	>1 and <10	<=20	
	Zinc		4.98E+02	1.50E+02		>10 and <100	<=50	
TRA-15	TRA Hot Waste Tanks #2, #3, #4 at TRA-613 (58 m ²)	Arsenic	6.90E+00	5.80E+00	7.60E-01	>1 and <10	<1	Limited Action: tanks still in use. Restricted occupational and residential use for less than 100 years and industrial land use until residential risk is <1E-04.
	Fluoride		2.00E+03	NA	2.69E+00	>100 and <1000	<=10	
TRA-16	TRA Inactive Radioactive Contaminated Tank at TRA-614 (2.23 m ²)	Mercury	2.40E-01	5.00E-02		>1 and <10	<1	No Further Action
TRA-19	TRA Radioactive Tanks 1 & Cs-134 ⁱ 4 at TRA-630, replaced by Tanks 1, 2, 3 & 4 (5.57 m ²)		3.33E+03		3.14E+03		>1 and <10	Limited Action: implementation of a contingent excavation and disposal option. Restricts occupational access and prohibits residential development until soil is removed or status changes.
TRA-34	North Storage Area (12,400 m ²)	Acetone	82.1	NA	5.53E-01	>100 and <1000	<=300 – likely volatilized or degraded	No Further Action : restricted land use until residential risk is less than 1E-04 based on 5-year review.

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Table A1-2. (continued).

Site	Description/Size (m ²)	COPC	Max. Conc. (mg/kg) ¹	Bkgd. Conc. (mg/kg) ¹	EBSL (mg/kg) ¹	HQ in the RI/FS ^a	Excel HQ ^b	Site Remediation Plans (Preferred Alternative)
TRA-36	TRA ETR Cooling Tower Basin (TRA-751) (1,060 m ²)	Cadmium	2.65E+00	2.20E+00		>1 and <10	<=900	No Further Action - See footnote at end of table
		Selenium	3.63E+00	2.20E-01	1.72E-01	>10 and <100	<=30	
		Zinc	1.64E+02	1.50E+02		>10 and <100	<=10	
		Chromium (VI)	5.00E-01	NA	1.62E-01		<1	
TRA-38	TRA ATR Cooling Tower (TRA-771) (956 m ²)	Thallium	2.29E+01	4.30E-01	1.01E-01	>100 and <1000	<=100	No Further Action
		Selenium	2.40E+01	2.20E-01	1.72E-01	>100 and <1000	<=200	
		Silver	2.20E+00	NA	2.00E+00		<1	
TRA-39	TRA MTR Cooling Tower N of TRA-607 (734 m ²)	Chromium (III)	3.74E+02	3.30E+01		None exceeded	<=400	No Further Action
TRA-619	TRA PCB Spill at TRA-619 (11 m ²)	PCBs ^d	1.93E+01	NA	1.66E-01	>1 and <10 ^e	<1	No Further Action: permanently restricted industrial land use unless otherwise indicated in 5-year review.
TRA-626	TRA PCB Spill at TRA-626 (16.9 m ²)	PCBs ^d	2.40E+01	NA	1.66E-01	>1 and <10 ^e	<1	
TRA-653	TRA PCB Spill at TRA-653 (13.9 m ²)	PCBs ^c	8.71E+00	NA	1.66E-01	>1 and <10 ^b	<1	

Table A1-2. (continued).

Site	Description/Size (m ²)	COPC	Max. Conc. (mg/kg) ¹	Bkgd. Conc. (mg/kg) ¹	EBSL (mg/kg) ¹	HQ in the RI/FS ^a	Excel HQ ^b	Site Remediation Plans (Preferred Alternative)
ETR Stack	Leak outside the ETR Stack (9.29 m ²)	PCBs ^d	2.30E+00	NA	1.66E-01	None exceeded	<1	No Further Action
Brass Cap Area	Contaminated soil under the Brass Cap Area (26.3 m ²)	Cs-134 ^c	3.33E+03	NA	3.14E+03	>1 and <10	Target value Limited Action: status every 5 yrs (or excavation & off-site disposal if limited action cannot be maintained). Restricted occupational use and prohibit residential development until soil removed or status changes.	
		Cs-137 ^c	1.95E+04	8.20E-01	5.58E+03	>1 and <10		
		Cs-134 ^f	3.33E+03	NA	1.90E+03	>1 and <10		
		Cs-137 ^f	1.95E+04	8.20E-01	4.95E+03	>1 and <10		
TRA-653	TRA-653 Chromium (Cr) contaminated soil	Chromium (III)	1.08E+02	3.30E+01		<=110 (plants) only		No Further Action

¹ pCi/g for radionuclides² mg/kg for metals & organic compounds

^a Updated TRVs were incorporated into the excel spreadsheet for WAG 2; updated results are reflected in the next column (newly calculated HQs). These updated results are used in all subsequent analysis for OU 10-04 ERA.

^b This represents the maximum HQs calculated across functional groups and T/E species.

^c Internal radionuclide contaminant

^d Used the minimum PCB EBSL which was Aroclor-1254.

^e Functional group AV210A, avian insectivores, is the only group exceeding the target value at each of these sites. The home range of these avian species is unknown and therefore a Site Use Factor (SUF) of 1.0 had to be used.

^f External radionuclide contaminant

Note: Shading indicates sites with contaminants having HQs greater than 10 retained for further evaluation in the OU 10-04 RI/FS.

Note-. TRA-36 cadmium value (2.65 mg/kg) is just slightly above background (2.2 mg/kg) and below the plant Eco-SSL (29 mg/kg) and the soil invertebrate Eco-SSL (110 mg/kg) (EPA 2000). This site was not carried forward to the OU 10-04 ERA.

^e External radionuclide contaminant

Note: Shading indicates sites with contaminants having HQs greater than 50 retained for further evaluation in the OU 10-04 RI/FS.

Note-. TRA-36 cadmium value (2.65 mg/kg) is just slightly above background (2.2 mg/kg) and below the plant Eco-SSL (29 mg/kg) and the soil invertebrate Eco-SSL (110 mg/kg) (EPA 2000). This site was not carried forward to the OU 10-04 ERA.

Table A1-3. Summary of WAG 3 ERA results.

Site	Description/Size (m ²)	COPC	Max. Conc. (mg/kg) ¹	Bkgd. Conc. (mg/kg) ¹	EBSL in the BRA (mg/kg) ¹	HQ in the RI/FS ^a	Excel HQ ^b	Site Remediation Plans (Preferred Alternative)
CPP-13	Pressurization of the Solid Storage Cyclone	Arsenic	7.10E+00	5.80E+00		<10	<=1	G3: Removal & Onsite Disposal
	NE of CPP-633	Mercury	5.95E-01	5.00E-02		<10	<=7	
		Sr-90 ^c	4.18E+03	4.90E-01	3.34E+03	<10	<=50	
CPP-14	Sewage Treatment Plant South of CPP-664 (3,920 m ²)	Mercury	3.80E-01	5.00E-02	3.00E-01	<100	<=30	G3: Removal & Onsite Disposal
Imhoff Tanks	Area 1 (30.5 m ²)	4-chloroaniline	1.10E+00	NA	5.35E-01	<10	<=2	
		PCBs ³	2.45E-01	NA	1.66E-01		<1	
		PCBs ³	7.40E-01	NA	1.66E-01		No file	
Plant Site	Area 2 CPP-603 to CPP-604 Line Leak (307 m ²)	Nickel	3.96E+01	3.50E+01			No file	G3: Removal & Onsite Disposal
		Arsenic	5.95E+00	5.80E+00		<10	<=2	
		Co-60 ^c	2.16E+04	NA	2.30E+03	<10	<=8	
CPP-19	Soil Storage Area in the NE corner of the CPP(3,430 m ²)	Cs-137 ^c	4.08E+05	8.20E-01	5.58E+03	<1,000	<=200	G3: Removal & Onsite Disposal
		Eu-152 ^c	8.76E+04	NA	2.18E+03	<1,000	<=100	
		Eu-154 ^c	5.35E+04	NA	3.31E+03	<100	<=40	
		Sr-90 ^c	1.25E+05	4.90E-01	3.34E+03	<1,000	<=300	
		Arsenic	7.10E+00	5.80E+00		<10	<=7	
CPP-34	CPP Gravel Pit #1 (2,730 m ²)	Mercury	2.90E-01	5.00E-02		<100	<=20	G3: Removal & Onsite Disposal
		Sr-90 ^c	6.00E+03	4.90E-01	3.34E+03	<100	<=60	
		Mercury	9.60E-01	5.00E-02	3.00E-01	<100	<=60	
CPP-37A	CPP HF Storage Tank (YBD-105) and Dry Well (488 m ²)	Barium	1.10E+03	3.00E+02		<1,000	<=4000	Not listed
CPP-39		Fluoride ^d	9.29E+02	NA	2.69E+00	<10	<=50	Not listed
		Mercury	1.70E-01	5.00E-02		<10	<=5	

Table A1-3. (continued).

Site	Description/Size (m ²)	COPC	Max. Conc. (mg/kg) ¹	Bkgd. Conc. (mg/kg) ¹	EBSL in the BRA (mg/kg) ¹	HQ in the RI/FS ^a	Excel HQ ^b	Site Remediation Plans (Preferred Alternative)
		Silver	1.87E+01	NA	2.00E+00	<10	<=9	
		Bis-2-ethylhexyl phthalate	1.40E+01	NA		<10	<=2	
		Chrysene	1.60E+00	NA	2.27E-01	>1,000 & <10,000	<1	
		Benzo(a)pyrene	5.00E-01	NA	3.34E-02	<10	<1	
		Benzo(b)fluorant hene	1.10E+00	NA	3.25E-02	<100	<1	
		Benzo(k)fluorant hene	9.70E-01	NA	4.90E-02	<10	<1	
		Benzo(g,h,i)perylene	0.27	NA			<1	
A1-11 CPP-40	Lime Pit at the Base of the CPP-601 Berm and Drain(30.1 m ²)	Fluoride ^d	1.10E+01	NA	2.69E+00	<100	<1	Not listed
		Chromium (III)	7.20E+01	3.30E+01		<100 ^d	<=40	
		Lead	6.00E+01	1.70E+01		<10	<=2	
CPP-42	Drainage Ditch West of CPP-608 (167 m ²)	Barium	1.10E+03	3.00E+02		<1,000	<=1000	Not listed
CPP-44	Grease Pit South of	Cadmium	8.40E+00	2.20E+00		<100	<=700	G3: Removal & Onsite Disposal
CPP-608 (63.2 m ²)		Chromium (III)	1.54E+03	3.30E+01	1.00E+00	<100 ^d	<=800	
		Chromium (VI)	1.54E+01	NA	1.62E-01	<100 ^d	<=8	
		Lead	2.81E+02	1.70E+01	9.94E-01	<100	<=20	
		Mercury	5.00E+00	5.00E-02	3.00E-01	<100	<=20	
		Nickel	3.44E+02	3.50E+01		<10	<=6	
		Decanal	9.00E-03	NA	none		No toxicity info	
		4-methyl-4-hydroxy-2-pentanone	9.50E+00	NA	none		No toxicity info	

Table A1-3. (continued).

Site	Description/Size (m ²)	COPC	Max. Conc. (mg/kg) ¹	Bkgd. Conc. (mg/kg) ¹	EBSL in the BRA (mg/kg) ¹	HQ in the RI/FS ^a	Excel HQ ^b	Site Remediation Plans (Preferred Alternative)
CPP-47	Pilot Plant Storage Area West of CPP-620 (18.6 m ²)	Fluoride	2.48E+02	NA	2.69E+00	<10	<1	No further action
CPP-54	Drum Storage Area West of CPP-660 (47.4 m ²)	Mercury	2.90E+01	5.00E-02	3.00E-01	<100	<=100	Not listed
CPP-55	Mercury Contaminated Area Near CPP-T-15 (766 m ²)	Arsenic	1.34E+01	5.80E+00		<10	<=8	G3: Removal & Onsite Disposal
		Chromium (III)	6.50E+01	3.30E+01	1.00E+00	<100 ^c	<=30	
		Chromium (VI)	6.50E+01	NA	1.62E-01	<100	<=30	
		Lead	3.20E+01	1.70E+01		<100	<=30	
		Mercury	5.20E+00	5.00E-02	3.00E-01	<1,000	<=200	
		Nickel	6.50E+01	3.50E+01		<100	<=10	
		Selenium	6.40E-01	2.20E-01		<10	<=4	
		Silver	3.00E+00	NA	2.00E+00	<10	<=2	
CPP-59,	Kerosene Tank Overflow West of CPP-633							
Zone 1	(NA)	TPH	2.80E+01	NA	5.16E+01	Not assessed		Not listed
Zone 2	(195 m ²)	TPH	6.30E+02	NA	5.16E+01	Not assessed		
		Xylene	1.10E+01	NA	2.78E-01	<10	<=2	
CPP-66	CPP CFSGP Fly Ash Pit (29,100 m ²)	Boron	3.10E+02	NA	5.00E-01	<1,000	<=200	Not listed
		Fluoride	1.65E+02	NA	2.69E+00	<100	<=40	
		Selenium	1.60E+00	2.20E-01		<100	<=20	
		Strontium	6.90E+02	NA	5.91E+00	<100	<=10	
CPP-67	CPP Percolation Ponds #1	Chromium (III)	3.31E+01	3.30E+01				Not listed
sediment	& #2 (41,500 m ²)	Copper	2.44E+01	2.20E+01				
		Cyanide	2.10E-01	NA	1.43E-01			

Table A1-3. (continued).

Site	Description/Size (m ²)	COPC	Max. Conc. (mg/kg) ⁱ	Bkgd. Conc. (mg/kg) ⁱ	EBSL in the BRA (mg/kg) ⁱ	HQ in the RI/FS ^a	Excel HQ ^b	Site Remediation Plans (Preferred Alternative)
CPP-67	CPP Percolation Ponds #1 effluent & #2 (41,500 m ²)	Mercury	3.62E+01	5.00E-02	3.00E-01			
		Selenium	3.70E-01	2.20E-01				
		Silver	1.03E+01	NA	2.00E+00			
		Sulfide	3.57E+01	NA	1.72E+01			
		Benzo(a)pyrene	3.50E-01	NA	3.34E-02			
		Benzo(b)fluorant hene	4.40E-01	NA	3.25E-02			
		Chrysene	6.00E-01	NA	2.27E-01			
		Chlorine	no data	NA	none			G3: Removal & Onsite Disposal
		Cobalt	no data	1.10E+01	4.27E-01			
		Iron	no data	2.40E+04	NA			
CPP-84	Buried Gas Cylinder Site (55.7 m ²)	Silver	no data	NA	2.00E+00			
		Phosphate	no data	no data	none			
		Sulfate	no data	no data	1.72E+01			
		Organics ^e	no data	no data	several			
		Acetone	2.80E+03	NA	5.53E-01	<1,000 ^f	<=200	G6: Removal, Treatment & Disposal
CPP-88	Radiologically - Contaminated Soils Map (55.7 m ²)	Arsenic	5.90E+00	5.80E+00		<10	<=7	No further action
		Mercury	5.52E-01	5.00E-02		<100	<=50	
		Nickel	5.51E+01	3.50E+01		<100	<=20	
CPP-90	CPP-709 Ruthenium Detection (501 m ²)	Antimony	9.50E+00	4.80E+00		<10	<=4	No further action
		Arsenic	2.95E+01	5.80E+00		<100	<=10	
		Mercury	1.00E+00	5.00E-02		<100	<=30	
CPP-93	Simulated Calcine Trench	Aluminum	1.20E+05	1.60E+04		>1,000 & <10,000	<=4000	G3: Removal & Onsite Disposal

Table A1-3. (continued).

Site	Description/Size (m ²)	COPC	Max. Conc. (mg/kg) ^a	Bkgd. Conc. (mg/kg) ^a	EBSL in the BRA (mg/kg) ^a	HQ in the RI/FS ^a	Excel HQ ^b	Site Remediation Plans (Preferred Alternative)
	(297 m ²)	Mercury	1.40E+02	5.00E-02	3.00E-01	>1,000 & <10,000	<=2000	
NA	Old Storage Pool (1,240 m ²)	Mercury	1.85E-01	5.00E-02		<100	<=10	
		Cs-137 ^c	7.41E+03	8.20E-01	5.58E+03	<100	<=10	
		Eu-152 ^c	9.44E+03	NA	2.18E+03	<100	<=60	
		Eu-154 ^c	9.44E+03	NA	3.31E+03	<100	<=20	
		Sr-90 ^c	4.82E+02	4.90E-01	3.34E+03	<10	<=4	
		Eu-152 ^g	9.44E+03	NA	2.27E+03	<10	<=2	
		Eu-154 ^g	9.44E+03	NA	2.48E+03	<10	<=2	
NA	Storage Yard (14,200 m ²)	Mercury	1.84E-01	5.00E-02	3.00E-01	<100	<=10	
NA	Tank Farm (16,000 m ²)	Mercury	5.83E-02	5.00E-02		<10	<=4	G1: Existing institutional controls, Additional institutional controls and surface water controls
		Am-241 ^c	9.10E+02	1.10E-02	1.78E+01	<100	<=50	
		Cs-137 ^c	2.02E+06	8.20E-01	5.58E+03	<10,000	<=4000	
		Eu-154 ^c	3.79E+02	NA	3.31E+03	<10	<=1	
		Pu-239 ^c	9.64E+01	1.10E-01	1.89E+01	<10	<=5	
		Sr-90 ^c	3.62E+05	4.90E-01	3.34E+03	<10,000	<=4000	
		U-235 ^c	5.50E+02	NA	2.27E+01	<100	<=20	
		Cs-137 ^g	2.02E+06	8.20E-01	4.95E+03	<1,000	<=200	
NA	Tank Farm South (2,080 m ²)	Mercury	6.10E-01	5.00E-02	3.00E-01	<100	<=40	G1: Existing institutional controls, Additional institutional controls and surface water controls
		Cs-137 ^c	8.24E+02	8.20E-01	5.58E+03	<10	<=2	
NA	WCF (1,650 m ²)	Mercury	1.24E+00	5.00E-02	3.00E-01	<100	<=80	
		Am-241 ^c	3.46E+02	1.10E-02	1.78E+01	<100	<=20	
		Cs-137 ^c	7.94E+02	8.20E-01	5.58E+03	<10	<=1	
		Eu-154 ^c	2.28E+03	NA	3.31E+03	<10	<=6	
								Not listed

A-1-4

Table A1-3. (continued).

Site	Description/Size (m ²)	COPC	Max. Conc. (mg/kg) ¹	Bkgd. Conc. (mg/kg) ¹	EBSL in the BRA (mg/kg) ¹	HQ in the RI/FS ^a	Excel HQ ^b	Site Remediation Plans (Preferred Alternative)
	Sr-90 ⁱ		6.36E+04	4.90E-01	3.34E+03	<1,000	<=600	

¹ pCi/g for radionuclides² mg/kg for metals & organic compounds³ The minimum EBSL for PCBs (Aroclor-1254) was used.^a Updated TRVs were incorporated into the excel spreadsheet for WAG 2; updated results are reflected in the next column (newly calculated HQs). These updated results are used in all subsequent analysis for OU 10-04 ERA.^b This represents the maximum HQs calculated across functional groups and T/E species.^c Internal radionuclide COPC.^d High HQ for plants only. All functional groups and C2 species had HQ <1.^e Chlorine, cobalt, iron, silver, phosphate, sulfate, anthracene, benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluororathene, chrysene, fluoranthene, methylene chloride, nitrite, phenanthrene and pyrene may also be of potential concern in the liquid effluent at CPP-67.^f Estimated concentration, no release has been known to occur. Acetone will biodegrade in this environment. See text discussion.^g External radionuclide COPC.^{g₁} = Group 1 - Tank Farm Sites CPP-20, CPP-25, CPP-26, CPP-28, CPP-31, CPP-32, CPP-79 & Process Equipment Waste Evaporator Building Sites CPP-15, CPP-27, CPP-33 & CPP-58.^{g₂} = Group 2 - Soils Under Buildings & Structures Sites CPP-02, CPP-80, CPP-87 & CPP-89.^{g₃} = Group 3 - Other Surface Soil Sites (near Building CPP-603: sites CPP-01, CPP-03, CPP-04, CPP-05, CPP-08, CPP-09, CPP-10, CPP-11 & CPP-19; near Building CPP-633: sites CPP-36& CPP-91; the calcined solids storage bins: sites CPP-13, CPP-35 & CPP-93; disposal trenches: site CPP-34; the old STP: site CPP-14; the grease pit near Building CPP 619:

site CPP-44; near temporary Building TB-1: site CPP-55; and the percolation ponds south of the ICPP fence: site CPP-67.

^{g₄} = Group 4 - Perched Water: CPP-83.^{g₅} = Group 5 - Snake River Plain Aquifer: CPP-23.^{g₆} = Group 6 - Buried Gas Cylinders: CPP-84 & CPP-94.^{g₇} = Group 7 - SFE Hot Waste Tank System: CPP-69.

Note: Shading indicates sites with contaminants having HQs greater than 10 retained for further evaluation in the OU 10-04 RI/FS.